

Translation

PATENT COOPERATION TREATY

PCT Application  
PCT/JP2002/008840



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

30 DEC 2004

Applicant's or agent's file reference 02816 PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/JP02/08840	International filing date (day/month/year) 30 August 2002 (30.08.02)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC B41J 2/01, 2/175		
Applicant	FUJI XEROX CO., LTD,	

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 16 December 2002 (16.12.02)	Date of completion of this report 07 April 2003 (07.04.2003)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP02/08840

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

the international application as originally filed  
 the description:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the claims:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the drawings:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
 These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
 the language of publication of the international application (under Rule 48.3(b)).  
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

contained in the international application in written form.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority in written form.  
 furnished subsequently to this Authority in computer readable form.  
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/fig. \_\_\_\_\_

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claim	5	YES
	Claims	1-4	NO
Inventive step (IS)	Claims		YES
	Claims	1-5	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

## 2. Citations and explanations

Document 1: JP, 2000-263768, A (Hitachi Koki Co., Ltd.), September 26, 2000 (09.26.00)

Document 2: JP, 10-95114, A (Seiko Epson Corporation), April 14, 1998 (04.14.98)

Document 3: JP, 4-358844, A (Canon Inc.), December 11, 1992 (12.11.92)

The invention described in claim 1 does not appear to be novel based on document 1 or 2 cited in the ISR. Document 1 discloses print heads comprising a plurality of ink jet nozzles, wherein both ends thereof are attached to a head frame with screws and five of these print heads are installed in series across the entire print width, and document 2 discloses a head unit of an ink jet record head that is disposed in two stages in the paper feed direction, wherein a head unit of each stage is zigzag shaped, and nozzle openings on the ends of vertically adjacent head units are removably attached on a supporting base by determining the positioning so as to match the pitch of nozzle openings of the units; the invention described in claim 1 is described in documents 1 and 2.

The invention described in claim 2 does not appear to be novel based on document 1 cited in the ISR. The section where the print head described in document 1 is to be attached with screws corresponds to an adjust plate of the invention described in claim 2.

The invention described in claim 3 does not appear to be novel based on document 2 cited in the ISR. Document 2 describes that a spray channel is formed for supplying to an ink spray opening ink that has flowed from an ink resupply port provided on the back side. The point about "laying a tube in the plate for supplying ink to the ink jet head" of the invention described in claim 3 is described in document 2.

The invention described in claim 4 does not appear to be novel based on document 2 cited in the ISR. Document 2 discloses disposing an ink spray opening that connects a connector connecting the other end of a flexible cable in a recess of the supporting base and a connecting pipe. The point of "the ink jet head having an ink ... connected to" of the invention described in claim 4 is described in document 2.

The invention described in claim 5 does not appear to involve an inventive step based on documents 2 and 3 cited in the ISR. Document 2 discloses connecting an ink tank to an ink supply port of the supporting base. The point of "fixing an ink tank for supplying ink to the ink jet head on the plate" of the invention described in claim 5 is described in document 2. Document 2 does not disclose the point about "controlling the height of movable ..." of the invention described in claim 5;

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V:

however, document 3 discloses setting the liquid level inside a sub-tank installed on a recording head as well as on the carriage at a suitable height all the time; therefore, adopting this point in the ink tank of document 2 could be easily conceived by a party skilled in the art.